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10/691,320	10/22/2003	Amol B. Adgaonkar	020431.1136	5916
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EXAMINER				
PARKER, BRANDI P				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/691,320

Applicant(s)

ADGAONKAR ET AL.

Examiner

BRANDI P. PARKER

Art Unit

3624

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 15-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 43 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/17/2009 has been entered.

Acknowledgements

2. This is a non-final office action in response to the Applicant's Request for Continued Examination filed on 2/17/2009.

3. Claims 1-14, 43 and 44 are pending in this Office Action. Claims 15-42 were previously cancelled. Claims 1, 8, 11, 14, 43 and 44 are amended.

Examiner's Notes

4. The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the

specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Response to Applicant's Remarks

5. Applicant's amendment to claims 1, 43 and 44, filed on 2/17/2009, has been fully considered and is persuasive. The rejection of claims 1-14, 43 and 44 under 35 USC § 112 is sustained. A server can be defined as hardware, or software programmed to respond to commands from a client. Therefore, it is unclear from the amended claim language whether specific hardware components or software programmed to respond to commands from a client performs the recited methods.

6. In response to Applicant's argument that Huang or Narimatsu fail to disclose independent claim 1 regarding a "computer-implemented system for planning repairs in response to demand in a multi-level network", Examiner respectfully disagrees. Huang teaches developing an integrated repair plain for repair locations (column/line 15/5-8). Therefore, Huang does teach and suggest this limitation.

7. In response to Applicant's argument that Huang or Narimatsu fail to disclose Claim 1 limitations regarding a "first phase", "second phase", or a "third phase", Examiner notes that although the methods performed in the references are not labeled a particular "phase", the methods performed teach and suggest the limitations of Claim 1, as well as perform the same function.

8. In response to Applicant's argument that Narimatsu fails to disclose independent Claim 1 limitations regarding **estimating** the earliest and latest time an operation can begin, Examiner respectfully disagrees. Narimatsu teaches the earliest and latest allocation time, which estimates the earliest time at which an operation can begin or end, and the latest time before which an operation must begin or end (column/line 17/1-7, regarding earliest and latest allocation time). Therefore, Narimatsu does teach and suggest this limitation.

9. There was an error on page 5 in the November 14, 2008 Final Office Action. The production plan in Narimatsu is analogous the Applicant's repair plan, not the production plan components. The production plan in Narimatsu is similar in the sense that resources are allocated for a plan, and said plan having an estimated time to begin and end (column/line 17/1-7, regarding earliest and latest allocation time).

10. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 1-14, 43 and 44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

13. Based on Supreme Court precedent and recent Federal Circuit decisions, in order for a method to be considered a "process" under §101, a claimed process must either: (1) be tied to a machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. *In re Bilski et al*, 88 USPQ 2d 1385

CAFC (2008). *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). If neither of these requirements is met by the claim, the method is not a patent eligible process under §101 and is non-statutory subject matter.

14. Claims 1, 43 and 44 are directed towards planning repairs in response to demand. Applicant specifies a server that is coupled with repair locations for the relevant structure. A server can be defined as hardware, or software programmed to respond to commands from a client. As the claims are not sufficiently tied to an apparatus, such as a computer, and/or do not transform the underlying subject matter (from your claim) to a different state, the claimed method is non-statutory and therefore rejected under 35 U.S.C. 101.

15. Whether a method appropriately includes particular machines to qualify as a section 101 process may not always be a straightforward inquiry. As *Comiskey* recognized, "the mere use of the machine to collect data necessary for application of the mental process may not make the claim patentable subject matter." *In re Comiskey*, 499 F.3d 1365, 1380 (Fed. Cir. 2007), (citing *In re Grams*, 888 F.2d 835, 839-40 (Fed. Cir. 1989)). In other words, nominal or token recitations of structure in a method claim should not convert an otherwise ineligible claim into an eligible one. *Ex parte Langemyr* (BPAI 2008-1495, 2008).

16. Claims 2-13 are rejected for being dependent upon rejected claim 1.

Claim Rejections - 35 USC § 112

17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18. Claims 1-14, 43 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

19. Regarding claims 1 and 11 the preamble describes a system for planning repairs in response to demand, comprising a server that performs the recited method steps. A server can be defined as hardware, or software programmed to respond to commands from a client. Therefore, the scope of the claim is indefinite.

20. Claims 2-10 and 14, and 12-13 are dependent on rejected claims 1 and 11 respectively and are rejected for the aforementioned reasons.

21. Claims 43 and 44 recite substantially similar subject matter as the disclosure in claim 1 and are therefore rejected under the same rationale as above.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 1-14, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al (US 6151582) in view of Narimatsu et al (US 5826236).

24. With respect to **claims 1**, Huang teaches a server configured to:

- a. access a forecasted demand for a specified quantity of serviceable parts at a specified future time at a repair location;
- b. plan a move order for moving the part between the repair location and the upstream repair location such that the part can be available for repair at the upstream repair location at the estimated earliest time, the move order having a start time and a delivery time (Figure 9, column/line 14/26-37, 17/9-11, 98/54-59, abstract);
- c. plan a repair order for the part at the upstream repair location at the estimated latest time, the repair order having a start time; in a third phase, for each of the one or more inspected unserviceable parts at the repair location that are not repairable at the repair location (Figure 9, column/line 14/26-37, 17/9-11);

d. re-plan the move order by modifying the delivery time of the move order according to the start time of the repair order and modifying the start time of the move order according to the modified delivery time of the move order; the start time of the re-planned move order being an estimated latest time at which the part can be moved from the repair location to the upstream repair location for repair in order to help satisfy the forecasted demand at the repair location (column/line 16/4-16, 17/9-21, Figure 9).

Huang does not teach the estimation of the earliest and latest time to begin repairs. However, Narimatsu teaches the method:

- e. estimate the earliest time at which an operation can begin for a part at an upstream location (column/line 16/49-52); and
- f. estimate a latest time at which an operation can begin with respect to the part at the upstream location in order to help satisfy the forecasted demand at the location (column/line 16-49-52).

It would have been obvious to one of ordinary skill in the art to include the business system of Huang with the ability to explicitly estimate the earliest and latest times to begin repairs as taught by Narimatsu since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable. The repair

supply chain provided in Huang offers a clear parallelism with manufacturing supply chain systems (column/line 14/51-15/10). A predictable result of Huang would be to apply its system to upstream repair locations.

25. As to **claim 2**, Huang teaches:

g. the earliest time estimated in the first phase takes into account any move lead time required for a part from the one location to the another location (column/line 33/42-45);

h. the latest time estimated in the second phase takes into account any lead time required for repairing the part at the upstream repair location and any move lead time required for moving the part back from the upstream repair location to the repair location (column/line 33/42-45); and

i. the start time of the re-planned move order is an estimated latest time taking into account any move lead time required for moving the part from the repair location to the upstream repair location, any repair lead time required for repairing the part at the upstream repair location, and any move lead time required for moving the part back from the upstream repair location to the repair location (column/line 33/42-45).

26. Regarding **claim 3**, Huang and Narimatsu teaches the lead time comprising one or more full days. It is old and well known in the art to track time and dates for repair completion to be tracked in increments of a day.

27. With respect to **claim 4**, Huang teaches wherein the move order specifies a Bill of Materials (BOM) and the move lead time associated with the move order comprises one or more full days (column/line 31/41-55, 92/57-67). Although Huang teaches a bill of materials instead of a bill distribution, "express suggestion to substitute one equivalent technique for another need not be present to render such substitution obvious-In re Fout, 213 USPQ 532 (CCPA 1982), In re Siebentritt, 152 USPQ 618 (CCPA 1967). Therefore, it would have been obvious to one having ordinary skill in the art to substitute a Bill of Materials for a Bill of Distribution (BOD) in the present system.

28. As to **claim 5**, Huang teaches wherein the repair order and associated re-planned move order are planned on a just-in-time basis (column/line 98/19-22, 50-52).

29. With respect to **claim 6**, Huang teaches wherein the repair order and associated re-planned move order are planned on an on-demand basis, the forecasted demand acting as a demand for generating the repair order and the repair order acting as a demand for generating the associated re-planned move order (column/line 98/35-38).

30. Regarding **claim 7**, Huang teaches wherein a part is available to help satisfy the forecasted demand if the part can be at the repair location in a serviceable state at the specified time of the forecasted demand or earlier (column/line 41/26-29).

31. As to **claim 8**, Huang teaches the system of claim 1, wherein the server is further configured to automatically approve planned repair orders and move orders satisfying one or more predefined constraints (column/line 14/53-57).

32. With respect to **claim 9**, Huang teaches wherein the first, second, and third phases are performed for each of a plurality of times within a planning horizon for each of the one or more inspected unserviceable parts at the repair location that are not repairable at the repair location (column/line 71/50-56, 72/1-20).

33. Regarding **claim 10**, Huang teaches the performance of the first, second and third phases. Specifying that the disclosed method is to be performed for each unserviceable part at the repair location is not distinguishable from what is disclosed in claim 1. Therefore, claim 10 is rejected according the rationale stated above.

34. As to **claims 11-13**, Huang in view of Narimatsu teach the limitations in claims 11-13 as described in claims 1-10 above. According to *In re Harza*, mere duplication of parts has no patentable significance unless new and unexpected results are produced. 214 USPQ 378 (CCPA 1960). Therefore, it would have been obvious to one having ordinary skill in the art to repeat the process disclosed in claims 1-10 for additional repair orders in a enterprise resource planning system, and claims 11-13 are rejected.

35. With respect to **claim 14**, Huang teaches wherein the system comprises a replenishment planning engine of a service parts planning system (column/line 98/34-49).

36. Regarding **claim 43**, Huang teaches a server configured to:

j. access a forecasted demand for a specified quantity of serviceable parts at a specified future time at a repair location (column/line 19/32-58);

k. taking into account any move lead time required for moving the part from the repair location to the upstream repair location and any inspection lead time required for inspecting the part at the upstream repair location (Huang: column/line 33/42-45);

l. plan a move order for moving the part between the repair location and the upstream repair location such that the part can be available for repair at the upstream repair location at the estimated earliest time, the move order having a start time and a delivery time (Figure 9, column/line 14/26-37, 17/9-11, 98/54-59, abstract);

m. taking into account any repair lead time required for repairing the part at the upstream repair location and any move lead time required for moving the part back from the upstream repair location to the repair location (Huang: column/line 33/42-45);

n. plan a repair order for the part at the upstream repair location at the estimated latest time on a just-in-time basis, the repair order having a start time,

the forecasted demand acting as a demand for generating the repair order (Figure 9, column/line 14/26-37, 17/9-11, 98/19-22, 50-52);

o. re-plan the move order on a just-in-time basis by modifying the delivery time of the move order according to the start time of the repair order and modifying the start time of the move order according to the modified delivery time of the move order, the repair order acting as a demand for generating the associated re-planned move order (column/line 16/4-16, 17/9-21, 98/19-22, 50-52, Figure 9);

p. the start time of the re-planned move order being an estimated latest time at which the part can be moved from the repair location to the upstream repair location for repair in order to help satisfy the forecasted demand at the repair location, taking into account any move lead time required for moving the part from the repair location to the upstream repair location, any inspection lead time required for inspecting the part at the upstream repair location, any repair lead time required for repairing the part at the upstream repair location, and any move lead time required for moving the part back from the upstream repair location to the repair location (column/line 33/42-45). and

q. the first, second, and third phases being performed for each of a plurality of times within a planning horizon for each of the one or more inspected unserviceable parts at the repair location that are not repairable at the repair location (column/line 71/50-56, 72/1-20).

Huang does not teach the estimation of the earliest and latest time to begin repairs. However, Narimatsu teaches the method that:

- r. estimate the earliest time at which an operation can begin for a part at an upstream location (column/line 16/49-52); and
- s. estimate a latest time at which an operation can begin with respect to the part at the upstream location in order to help satisfy the forecasted demand at the location (column/line 16-49-52).

It would have been obvious to one of ordinary skill in the art to include the business system of Huang with the ability to explicitly estimate the earliest and latest times to begin repairs as taught by Narimatsu since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

37. As to **Claim 44**, Huang teaches:

- t. access a forecasted demand for a specified quantity of serviceable parts at a specified future time at the downstream repair location (column/line 19/32-58);
- u. plan a plurality of move orders for moving the part between the downstream repair location and the final upstream repair location such that the part can be available for repair at the final upstream repair location at the

estimated earliest time for the final upstream repair location, each move order having a start time and a delivery time (Figure 9, column/line 14/26-37, 17/9-11, 98/54-59, abstract);

v. plan a repair order for the part at the final upstream repair location at the estimated latest time for the final upstream repair location, the repair order having a start time (Figure 9, column/line 14/26-37, 17/9-11, 98/19-22, 50-52);

w. re-plan the move orders by modifying the delivery time of a most upstream move order according to the start time of the repair order, modifying the start time of the most upstream move order according to the modified delivery time of the most upstream move order, modifying the delivery time of a next most upstream move order according to the start time of the most upstream move order, modifying the start time of the next most upstream move order according to the modified delivery time of the next most upstream move order, and continuing in this manner until the start time of a most downstream move order has been modified (column/line 16/4-16, 17/9-21, 98/19-22, 50-52, Figure 9);

x. the start times of the re-planned move orders being estimated latest times at which the part can be moved between repair locations for repair at the final upstream repair location in order to help satisfy the forecasted demand at the downstream repair location (column/line 33/42-45).

Huang does not teach the estimation of the earliest and latest time to begin repairs. However, Narimatsu teaches the method that:

- y. estimate the earliest time at which an operation can begin for a part at an upstream location (column/line 16/49-52); and
- z. estimate a latest time at which an operation can begin with respect to the part at the upstream location in order to help satisfy the forecasted demand at the location (column/line 16-49-52).

It would have been obvious to one of ordinary skill in the art to include the business system of Huang with the ability to explicitly estimate the earliest and latest times to begin repairs as taught by Narimatsu since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Conclusion

- 38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDI P. PARKER whose telephone number is (571) 272-9796. The examiner can normally be reached on Mon-Thurs. 8-5pm.
- 39. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley B. Bayat can be reached on (571) 272-6704. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

40. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRANDI P PARKER/
Examiner, Art Unit 3624

/Bradley B Bayat/
Supervisory Patent Examiner, Art Unit 3624